

[54] **HIGH PERFORMANCE SINGLE MODE
WAVEGUIDE**

[57]

ABSTRACT

Disclosed is a single mode optical waveguide fiber having a segmented core design. In particular, the core comprises three segments, each having characteristic dimensions and refractive index profile. By proper choice of index profile in each segment, a waveguide fiber is made which has a mode field diameter of about 9.5, low, positive total dispersion over the operating window 1530 nm to 1565 nm as well as effective area greater than 60 μm^2 .